

Application No. 09/848,940
Amendment dated June 24, 2004
Reply to Office Action dated March 24, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A hermetically sealed compressor assembly comprising:

- a hermetically sealed housing;
 - an electric motor disposed in said housing;
 - a compression mechanism disposed in said housing and operatively coupled to said motor;
 - a terminal assembly comprising a cup-shaped terminal body extending through and sealingly attached to said housing, said terminal assembly having electrically conductive pins extending through and insulated from said terminal body;
 - a cluster block assembly disposed within said housing and connected to said terminal assembly, said pins electrically connected to said motor through said cluster block assembly, said cluster block assembly including a cluster block which is fitted to said terminal body, said cluster block defining a free volume therein;
 - a cavity being defined between the interior of the cup-shaped terminal body and an interfacing surface of said cluster block; and
 - a substantially solid dielectric material substantially filling at least one of said cavity and substantially all said free volume within said cluster block assembly,
- wherein said cluster block assembly includes a means of ingress for said dielectric material to enter at least one of said cavity and said free volume when said cluster block is fitted to said terminal body.

Claim 2 (original): The hermetic compressor assembly of Claim 1, wherein said dielectric material substantially conforms to the surfaces over which it extends.

Claim 3 (canceled):

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Claim 4 (currently amended): The hermetic compressor assembly of Claim 1, wherein said cluster block includes a cover and a base fitted to said cover, and wherein said ~~provides a~~ means of ingress ~~for said dielectric material thereinto~~ comprises a first aperture extending through said cover and in communication with said free volume.

Claim 5 (currently amended): The hermetic compressor assembly of Claim 4, wherein said ~~cluster block provides a~~ means of ingress further comprises a second aperture extending through said base, said second aperture communicating between said free volume and ~~for said dielectric material into~~ said cavity.

Claim 6 (original): The hermetic compressor assembly of Claim 1, wherein said dielectric material is one of an epoxy and a dielectric polymer.

Claim 7 (original): The hermetic compressor of Claim 6, wherein said dielectric material is a cured gel and is substantially solid.

Claim 8 (currently amended): The hermetic compressor assembly of Claim 1, further comprising jacketed wires through which said pins and said motor are electrically connected, and wherein said cluster block further comprises passages through which said ~~lead~~ jacketed wires extend, said passages defining a portion of said free volume and also containing a portion of said dielectric material in contact with the jackets of said wires.

Claim 9 (currently amended): A hermetically sealed compressor assembly comprising:

- a hermetically sealed housing;
- an electric motor disposed in said housing;
- a compression mechanism disposed in said housing and operatively coupled to said motor;
- a terminal assembly comprising a cup-shaped terminal body extending through and sealingly attached to said housing, said terminal assembly having electrically conductive pins extending through and insulated from said terminal body;

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a cluster block assembly disposed within said housing and connected to said terminal assembly, said pins electrically connected to said motor through said cluster block assembly, said cluster block assembly including a cluster block which is fitted to said terminal body;to define a cavity between said terminal body and said cluster block, said cluster block defining an aperture extending through said cluster block and externally communicating with said cavity when said cluster block is fitted to said terminal body; and

a liquid dielectric material which has been deposited ~~placed~~ within at least one of said cluster block and a said cavity through said aperture defined by said cluster block assembly and said terminal assembly and which has been allowed to cure to a substantially solid state, whereby the electrical connection between said cluster block assembly and said terminal assembly is insulated.

Claim 10 (original): The hermetic compressor assembly of Claim 9, wherein said dielectric material substantially conforms to the surfaces over which it extends.

Claim 11 (original): The hermetic compressor assembly of Claim 9, wherein said dielectric material is injected subsequent to the connection of said cluster block assembly to said terminal assembly.

Claim 12 (original): The hermetic compressor assembly of Claim 9, wherein said dielectric material is placed prior to the connection of said connector assembly to said terminal assembly.

Claim 13 (original): The hermetic compressor of Claim 9, wherein said dielectric material is cured after being placed, whereby said dielectric material becomes substantially solid.

Claim 14 (original): The hermetic compressor assembly of Claim 9, wherein said dielectric material is one of an epoxy and a dielectric polymer.

Claim 15 (original): The hermetic compressor assembly of Claim 9, further comprising jacketed wires which are electrically connected to said pins and said motor, and wherein said

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cluster block further comprises passages through which said wires extend, said passages containing a portion of said dielectric material which is in contact with the jackets of said wires.

Claim 16 (currently amended): A method for insulating an electrical connection within a hermetically sealed compressor assembly, comprising:

substantially filling a ~~placing~~ cavity defined between a cluster block assembly and a terminal assembly with a dielectric gel, ~~into a terminal assembly~~, the terminal assembly having at least one conductor pin and the cluster block assembly having at least one connector;

substantially filling a free volume defined in the cluster block assembly with ~~placing~~ the dielectric gel ~~into a cluster block assembly having at least one connector~~;

connecting the cluster block assembly and the terminal assembly together whereby the pin and the connector are electrically coupled wherein placing the dielectric gel into the cluster block and connecting the cluster block assembly and the terminal assembly together are performable in any order;

allowing the dielectric gel to cure into a substantially solid state; and

positioning the cluster block assembly within a hermetically sealed compressor housing.

Claim 17 (original): The method of Claim 16, wherein the dielectric gel is one of an epoxy and a dielectric polymer.

Claim 18 (original): The method of Claim 16 wherein said steps of placing the dielectric gel comprise injecting the dielectric gel into the cluster block assembly via an aperture in the cluster block assembly.

Claim 19 (original): The method of Claim 18, wherein said step of injecting is performed after said step of connecting the cluster block assembly and the terminal assembly together.

Claim 20 (original): The method of Claim 16, wherein said steps of placing the dielectric gel are each performed prior to said step of connecting the cluster block assembly and the terminal assembly together.

Claim 21 (currently amended): A hermetically sealed compressor assembly comprising:

- a hermetically sealed housing;
- an electric motor disposed in said housing;
- a compression mechanism disposed in said housing and operatively coupled to said motor;
- a terminal assembly comprising a cup-shaped terminal body extending through and sealingly attached to said housing, said terminal assembly having a plurality of conductor pins extending through and insulated from said terminal body;
- a cluster block assembly disposed within said housing and in communication with said terminal assembly, said cluster block assembly including a cluster block which is fitted to said terminal body, said cluster block having a free volume therein;
- ~~an interface between the interior of said cup-shaped terminal assembly and said cluster block assembly defining~~ a cavity defined between the interior of the cup-shaped terminal body and said cluster block;
- said plurality of conductor pins electrically connected to said motor through said cluster block assembly; and
- a substantially solid dielectric material substantially filling ~~at least one of~~ said cavity and said cluster block free volume.

Claim 22 (original): The hermetic compressor assembly of Claim 21, wherein said dielectric material substantially conforms to the surfaces over which it extends.

Claim 23 (original): The hermetic compressor assembly of Claim 21, wherein said cavity is closed and has no means of ingress thereinto once said cluster block assembly is fitted to said terminal assembly.

Claim 24 (currently amended): The hermetic compressor assembly of Claim 21, wherein said cluster block provides a means of ingress for said dielectric material to enter said free volume of said cluster block after said cluster block assembly is fitted to said terminal assembly~~thereinto~~.

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Claim 25 (currently amended): The hermetic compressor assembly of Claim 24, wherein said cluster block further provides a means of ingress for said dielectric material ~~into~~ to enter said cavity after said cluster block assembly is fitted to said terminal assembly.

Claim 26 (original): The hermetic compressor assembly of Claim 21, wherein said dielectric material is one of an epoxy and a dielectric polymer.

Claim 27 (original): The hermetic compressor of Claim 21, wherein said dielectric material is a cured gel and is substantially solid.